

Amendments to the Specification:

Please replace the paragraph beginning at page 11, line 21, with the following rewritten paragraph:

To specify this example further, suppose that as attributes of a text document, we assign one internal attribute $|i\rangle$ for each unique word in the document. If a node potential contains one document, containing the three words "the word good," the node potential will contain three possible spring constants.

Value = $1/3$ for documents that contain one word in "the word good"

Value = $2/3$ for documents that contain two ~~word~~ words in "the word good"

Value = $3/3$ for documents that contain all words in "the word good"

Please replace the paragraph beginning at page 15, line 11, with the following rewritten paragraph:

The two way technical skill search represented by the three node net 44 may be further refined by the combination of a node representing a non-textual rule. Such an arrangement is represented in Fig. 5. Looking to that figure, a net represented in general at 66 is seen to comprise positive node 68, again referring to resumes exhibiting technical experience in connection with Microsoft systems; a positive node 70 loaded with attractor material representing experience in a Unix environment, and negative node 72 which is loaded with negative attractor(s) representing candidates with no technical experience. Nodes 68 and 70 are associated by an interaction represented at line 74. Nodes 68 and 72 are associated by an interaction represented at line 76; and nodes 70 and 72 are associated by an interaction represented at line 78. Net 66 also incorporates a negative rule node 80. For the resume example at hand, node 80 represents a criterion that resumes having a date of January 1, 2003 or earlier are to be aborted. Node 80 is seen associated with node 68 by an interaction represented at line 82. The analysis now shows a document 80 represented at symbol 84 having promise of indicating good information, while document symbols 85 and 86 tend to have only minor importance to the search. However, documents 87, 88 and 89 are aligned on interaction line 82 and are somewhat closely associated with the cutoff date represented at rule node 80.

Please replace the paragraph beginning at page 16, line 25, with the following rewritten paragraph:

The user may seek to further resolve documents, for example, those at 138, that currently have similar locations. One way to achieve this entails the creation of a pseudo-node, which is created from all of the documents in a geometric region, as indicated by the dashed circle 146, and the enclosed documents 138. By then ~~connected~~ connecting the pseudo-node 146 to a node that attracts (e.g.) cities in the Columbus, OH region, the user may achieve an additional resolution of documents that were previously considered similar by the net potential. The documents previously at 138 that are now attracted towards the "Live near Columbus" node are displayed at 140.

Please replace the paragraph beginning at page 19, line 19 and line 22, with the following rewritten paragraph:

As noted earlier, an interaction must be established between nodes in accordance with the method of the invention. Accordingly, as represented at line 244 and block 246 carrying the UI symbol, an interaction is established between the "good" or positive node and the "bad" or negative node. That interaction appears as a line between the nodes at the computer display, the latter nodes being preferably represented as circles. The interaction having been drawn, then as represented at line 248 and block 250, also carrying a UI symbol, the initial criteria is loaded into the "good" or positive node. For the resume example, good resumes or text components thereof may be utilized for this initial loading procedure. The method then continues as represented at line 252 to the query posed at block 254 determining whether "bad" documents were made available in connection with block 218 of Fig. 9A. In the event of an affirmative determination, then as represented at line 256 and block 248 258 carrying a UI symbol, the initial "bad" criteria or document is loaded to the negative or "bad" node. The program then reverts to flowchart node A as represented at line 260. ~~Were~~ Where the determination of block 254 is that there are no "bad" examples provided by the business process, then as represented at line 262 the negative node is constituted as a null node as described in conjunction with Fig. 2 and the method reverts to flowchart node A.

Please replace the paragraph beginning at page 24, line 9, with the following rewritten paragraph:

Where the program reaches node 394 indicating that a number is at hand and number normalization is called for, then the routine illustrated in the flowchart of Fig. 12 is turned to. Looking to that figure, note that all blocks are identified with the system process symbol, SP.

The program commences with block 420 providing for the selection of an item or word to be treated as a number. Then, as represented at line 422 and block 424 where required as in the case with dates, the number word is converted to a float or integer. Following such conversion if required, the program continues as represented at line 426 and block 428. An offset and factor is applied wherein the result, X is equal to the factor multiplied times the number N plus the offset. The program then continues as represented at line 430 and block 432. The range elected in connection with block 366 in Fig. 11 is set and a value for precision, P is set. The program continues as represented at line 434 and block 436. Derivation of the then representation of the number, X , at hand is commenced. In this regard, ~~treated (block 429)~~ a quantity, T is calculated as the log to the base 10 value of X divided by the range, R . As an example, should the factor equal 1; the offset equal 0; and the range equal 2, for a number, $X = 1.2 \times 10^6$, the first digit of the normalized representation will be 3. Next, as represented at line 438 and block 440 the quantity T , its position and length are saved for later fingerprinting. Next, as represented at line 442 and block 444 the range, R is decremented by 1 and the program continues as represented at line 446 to the query posed at block 448 determining whether or not the range value, R , has been decremented to 0. Where it has not reached the value 0, then the procedure loops as represented at loop line 450 extending to block 436. For the above example, the value of R now will be 1 and the next number of the normalized representation of the exemplar number will be 6.

Please replace the paragraph beginning at page 27, line 17, 18; page 28, line 4, with the following rewritten paragraph:

As described, for example, at blocks 312 and 340 and in general in conjunction with Fig. 6, common features of documents can be combined with what may be categorized as fingerprint operations. Typically, the user will interface with the display by delimiting a computerized boundary around regions of document symbols which may be suspected as exhibiting either desired or undesired attributes. Those documents can then be refined to evolve what is referred to as composite fingerprint. A composite fingerprint is one that combines features from more than one document. In effect, the composite fingerprint does not correspond to any single document in the population. Looking to Fig. 14, block 530, having a UI symbol next to it, provides for a document fingerprint or a previously computed composite fingerprint, that component being identified as A. Adjacent block 530, block 532, also carrying a UI symbol provides for the selection of a set of document fingerprints by the user by ~~delimiting~~ delimiting a region at the computer system display wherein document symbols are present. That set of

document fingerprints is generally categorized as B. As represented at line 534 and block 536 having an SP symbol annexed to it, a document DB within region B is retrieved, for example, the first document at the commencement of this procedure. Correspondingly, line 538 extends from block 530 to block 540 carrying the SP symbol. Block 540 provides for the initialization of the composite fingerprint, C with the features of either the document fingerprint or the composite fingerprint of A. In effect, the instructions at block 540 provide that C is equal to A. The program then progresses as represented at line 542 extending to the refinement block 544. Note that line 546 also extends to block 544 via line 542. The refinement procedure is one wherein the program is developing a composite of the elected A fingerprint and the elected document, DB from the B region. The composite fingerprint, C, will be a result of an operation carried out between fingerprint C and fingerprint DB. This operation is one involving Boolean algebra and the operation may provide a union, an intersection, or a difference of features of C and document DB. Note that block 544 carries an SP symbol. In general, the union of two fingerprints contains each feature (number) exactly once that appears in either fingerprint. On the other hand, an intersection may be employed to isolate desired criteria inasmuch as it will elect each feature that appears from the A fingerprint and the B fingerprint. A difference operation functions to remove feature numbers that appear in both the A fingerprints and the B fingerprints and may be used to remove common, ~~spurious~~, spurious, or uninteresting features from a fingerprint.

Please replace the paragraph beginning at page 31, line 11, 26, 31 and page 32, line 8, with the following rewritten paragraph:

Another refinement of the evaluation or search method of the invention has been described in connection with Fig. 8 wherein the computer system display can be employed in conjunction with two or more nets to develop visualizable correlations between documents or groups of documents. Fig. 16 presents a flowchart illustrating this methodology at a higher level of detail. The computer system displayed multiple nets and associated correlation diagrams identify a set of document pairs where the documents in any pair share a common attribute and attribute value. While the correlation pair may be visibly identified by any of a variety of computer display techniques, they are preferably displayed as a line connecting two or more document symbols and which extend between two different regions delimited by the user. Looking momentarily to Fig. 46A, 16C, a schematic representation of two nets at a computer display is provided. Those nets are generally identified at 690 and 692. In this regard, net 690 is seen to comprise a positive node 694 spaced from a negative node 696 and associated

therewith via an interaction represented as a line 698. Correspondingly, net 692 is comprised of positive node 700 which is spaced from negative node 702 and associated therewith by an interaction represented by line 704. Working interactively with the computer system display, the user may, for example, create a region delimited by a computer drawn boundary shown in rectangular form at 706. Another such region may be created by the user as may be delimited, for example, by the rectangular boundary 708. Thus, two regions are developed. A region may encompass documents in one or more nets. Upon identifying the desired attribute and associated attribute value, the computer system will create a correlation line between two document symbols sharing the attribute and attribute value. Such a correlation line is represented at 710 extending between two document symbols at the two user delimited regions.

Now looking to Fig. 46 16A the correlation method commences as represented at flowchart start node 720 and line 722 extending to block 724. Note that box 724 is associated with a UI symbol and describes the creation of a region A that encompasses at least one document on one or more nets. Following creation of this region A, as represented at line 726 and block 728 a determination is made as to whether region A covers more than one net. For example, regions shown in Fig. 46A 16C cover more than one net. Where the delimited region does cover more than one net, then as represented at line 730 and block 732 region A is mapped to a document set by the user by selecting a Boolean union or intersection of documents on different nets. Note that block 732 is accompanied with a UI symbol. With this procedure the union will emulate a logical ORing function, while the intersection will emulate a logical ANDing function. The program then continues as represented at lines 734 and 736. Returning to block 728, where region A does not cover more than one net, then as represented at line 736 and block 738 carrying a UI symbol, the user creates a region B that encompasses at least one document on one or more nets. It may be noted that regions A and B may coincident, overlap in part or be disjoint, i.e., located apart from each other as schematically illustrated in Fig. 46A- 16C. The method continues as represented at line 740 and block 742 wherein a corresponding query is posed as to whether region B covers more than one net. Where it does cover more than one net, then as represented at line 744 and block 746 associated with a UI symbol, the user maps region B to a document set by selecting a Boolean union or intersection of documents on different nets. The method then continues as represented at lines 748 and 750. Where the determination in connection with block 742 is that region B does not cover more than one net, then as represented at line 750 and block 752 carrying a UI symbol, the user selects the document attribute, Q to be correlated. It may be

noted that experience with the method at hand resulted in an observation that the method may help entities organize data for putting it into a conventional relational data base. In this regard, internal attributes can be turned into external attributes such that the documents appear like the record of a conventional database.

Please replace the paragraph beginning at page 33, line 25, with the following rewritten paragraph:

Referring to Fig. 17, a representation of a three net correlation display is shown generally at 810. Display 810 illustrates three nets represented generally at 812-814. The attribute employed for the three networks of display 810 for the subject matter of resumes is document identification. Thus, the correlation lines extend between and among symbols representing the same document. To the left of these nets 812-814 are display categories shown respectively at 816-818. An association of nets 812-814 with the weight table items 816-818 are represented respectively by arrow pointers ~~820~~ 820-822. These arrow pointers are not part of the display itself. The correlations of display 810 are related to the earlier-described resume based exemplar. In this regard, net 812 is a three node net which is similar to that described in Fig. 4. In this regard, it has a positive node 824 that provides attractors for resumes showing experience with Microsoft systems. Similarly, positive node 826 incorporates attractors with respect to experience with Unix systems. Negative node 828 is associated with non-technical experience, for example, those involved in market research. Nodes 824 and 826 are associated with an interaction represented at line 830. Nodes 824 and 828 are associated by an interaction represented at line 832; and nodes 828 and 826 are associated by an interaction represented at line 834.

Please replace the paragraph beginning at page 7, line 15, with the following rewritten paragraph: